

## **REMARKS**

In response to the above-identified Office Action, reconsideration of the present application in light of the comments below is respectfully requested. Claims 13-21 are currently pending. Claims 1-12 and 22-24 were previously canceled without prejudice to their consideration in this or a continuing application. Examiner Ramana initially rejected claims 13-21 over the Fraser reference (U.S. Patent No. 6,432,106), claims 14-19 as allegedly indefinite, and lodged objections to claim 19 and to parts of the specification. It is respectfully maintained that the pending claims are allowable as they currently stand, and it is respectfully requested that the objections and rejections be withdrawn.

### **Regarding the Specification**

Referring initially to Examiner Ramana's first objection to the specification, it is respectfully noted that the examiner is incorrect. As noted on page 5 of the specification, angle D (shown in FIG. 4A) is the angle of plane P relative to the bottom of the plate. Angle B is the angle resulting from the trajectory of screws 20, as seen in FIG. 3 and described at page 5, line 11. Thus, the description of angle B on page 5, line 14 comports with the figures, and no correction is appropriate.

As to the second asserted objection to the specification, the Examiner claimed that the specification "fail[ed] to provide proper antecedent basis" for language in claims 16 and 18. It is not clear from the objection precisely what term or terms the Examiner believes are not clearly supported by the specification. Focusing on the entirety of the claim language cited by the Examiner, respectfully, that objection is also in error. The specification notes that fusion

material is used in an interbody space, e.g. the space between L5 and S1. *See, e.g.*, page 2, lines 13-15 and page 7, line 26 to page 8, line 1; note also the last sentence of the Abstract. Such material is shown with reference number 31 in FIGS. 2, 3 and 4. Referring to claim 16, it is not questioned that the specification discloses “pulling L5 and S1 toward each other.” With the disclosure of fusion material in the interbody space, it is clear that the specification discloses “compressing fusion material in said intervertebral space.” Similarly, the language of claim 18 cited by the Examiner, “engaging fusion material by the inferior end plate and superior end plate” and “compressing fusion material between said end plates,” is disclosed at least in the above noted parts of the specification.

### **Claim Objection**

Turning now to the Examiner’s objection to claim 19, it is respectfully submitted that there is no “informality” in that claim. It is noted that the Examiner did not assert that the language of claim 19 was indefinite under Section 112, and thus the language is susceptible to a proper construction. It is not seen how the language employed in claim 19 could be unclear and/or inconsistent with the specification. Moreover, it is well established that the term “means” proposed by the Examiner is a presumptively limiting term. While it is recognized that the term “devices” may eventually be determined to be equivalent to the term “means,” the Examiner should give a claim term the broadest reasonable interpretation during prosecution, and claim language without the term “means” is presumptively not to be limited to the described embodiment(s) and equivalents. It is not believed to be proper for the Examiner to require an amendment that may narrow a claim, as is proposed in this objection.

## Rejections of Claims

The Examiner has used Section 112 to initially reject claims 14-19, asserting that “on convergent paths in S1” is unclear. It is first noted that claims 17 and 18 do not include that language, and thus the rejection of them on this ground should be withdrawn. Moreover, the cited language is sufficiently definite. The entirety of the relevant language in claim 14 is “installing said downwardly-installed screws through the foot portion on convergent paths in S1.” None of these words have meanings that are repugnant to other terms or are otherwise undefinable. It is clear that the language noted by the Examiner refers to paths of the “downwardly-installed screws.” Non-limiting embodiments of such paths are shown at least in FIGS. 1 and 3, and described at least at page 5, lines 8-15 and page 6, lines 26-29. Considered as a whole, claim 14 is able to be construed and meets the definiteness standard.

The Examiner’s further position that claims 13-21 are obvious over the Fraser reference is also respectfully traversed. Among other things, claim 13 includes the step of “installing a foot portion of a plate partially into the anterior portion of intervertebral space.” Fraser, on the contrary, shows a fusion cage to which a plate is attached on one side. The fusion cage is within an intervertebral space, but no part of the plate is within the space. The Examiner has asserted that element 38’ in FIG. 3 of the Fraser reference is a “foot portion.” However, Fraser does not disclose or suggest placing element 38’ or any other part of plate 20 in the intervertebral space. Indeed, FIG. 3 of the Fraser reference shows element 38’ bent outward, away from the intervertebral space, to provide for the angle of the lower screw. Changing the reference to bend element 38’ inward would thus fundamentally change the principle of operation of the reference. Similarly, forcing element 38’ into an intervertebral space would cause the fusion cage to be angled with respect to the intervertebral space, and would direct screw 48 into the intervertebral

space rather than into bone. For at least these reasons, a *prima facie* case of obviousness has not been established for claim 13.

Since each of claims 14-21 is dependent from claim 13, they also are allowable over the Fraser reference. Further, several of those dependent claims include features not shown or suggested by Fraser. For example, with respect to claim 14, the Fraser reference does not disclose or suggest convergent paths in S1 for screws. In Fraser, two screws go into a lower vertebra through holes 38 and 36. There is no indication that those lower screws are on a convergent path. The only description of screw positioning is between upper and lower screws, not between two lower screws. With respect to claim 15, the Fraser reference does not show or suggest extending downwardly-installed screws through a junction of vertebral bodies, e.g. the S1-S2 junction. With respect to claim 17, as noted above element 38' of the Fraser reference is not in an intervertebral space, and thus no part of it can be “atop the superior end plate of S1” as the claim recites. With respect to claims 20 and 21, the Fraser reference does not contemplate “an anti-backout screw with a conical head surface” to engage other screws. In Fraser, nothing appears to contact screws 46 and 48 other than tissue and plate 20, and perhaps part of fusion cage 10 or substances to promote fusion. With these examples, and perhaps others, many or all of dependent claims 14-21 are allowable on multiple grounds.

## **Double Patenting Rejection**

The Examiner also rejected claims 13-21 provisionally as claiming the same invention as claims 13-21 of copending U.S. Application Serial No. 10/843,110 (the “‘110 Application”). By an amendment in that case dated September 14, 2004, claims 13-21 of the ‘110 Application

have been cancelled without prejudice. Thus, it is submitted that this ground for rejection is now moot.

### **Conclusion**

In summary, the Examiner is respectfully requested to reconsider the pending claims in light of the above remarks, and to issue a Notice of Allowance for them. The undersigned attorney would welcome a telephone call from the Examiner if it is determined that further information or action is needed to place this application in better form for allowance.

Respectfully submitted,

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